Proposed Project

Upper Little Patuxent

Project Number: 1827_1828
Subwatershed: Plumtree 2

Project Type: Stream Restoration
Project Size: Approx. 2000 linear feet

Project Location: North of Michaels Way at Hayfield Drive.

Project Description: This project would entail regrading and stabilizing the stream banks in localized areas containing actively eroding undercut banks. This project involves stabilizing the knick point located at the upstream limits of the study area to prevent further downcutting of the stream channel. The riparian buffer should be widened in localized areas to improve stream stability.

Project Benefits:

Stabilization	The stream banks will be stabilized to reduce scour and prevent further widening of the channel.
Water Quality	Implementation of this project will provide a reduction in sediment supply and the associated water quality benefits.
Education	The project could provide educational benefits due to the proximity of the project to adjacent residential areas.

Project Constraints:

Environmental	Stream/wetland permitting will be necessary and stream closure periods may affect timing of work. No major environmental constraints are anticipated with this project.
Property Ownership	The project is located on the Brinkleigh natural resource open space region and the Southview Road/Pindell Crossing natural resource open space region. Private properties that may be impacted by this project include; 9302-9402 Michaels Way and 3016 Southview Road.
Facility Access	Access to this site is obtained from residential properties located adjacent to Michaels Way and the stream channel.
Design / Construction	No major design or construction constraints are present.

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Catchment Code: Plumtree 2

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Cost Detail:

ITEM	QTY	UNITS	UNIT COST	TOTAL
Stream Restoration				
Stream restoration/stabilization[1]	2,000	LF	$351.00	$702,000
Buffer enhancement		LF	$30.00	$0
Outfall stabilization/protection		LF	$100.00	$0
			Direct Construction Subtotal	$702,000
Indirect Costs				
E/SC, MOT, MOS (included above)				$0
Construction Stakeout (2%)	1	LS	$14,040.00	$14,040
			Base Construction Cost	$716,040
			Mobilization (10% of Directs or $1,000)	$70,200
			Subtotal	$786,240
			Contingency (30%)	$235,872
			Construction Subtotal	$1,022,112
			Envt'l Studies / Permitting (5% of Construction or $5,000)	$51,106
			Engineering and Surveys	$218,000
			Post-Construction Monitoring ($40 / LF or $4,000)	$80,000
			Total Capital Cost	**$1,371,218**
Operations and Maintenance Costs				
Annual Maintenance	5	Percent	$35,100	
Discount Rate	5	Percent		
Expected Life	5	Years		
			Net Present Value of Annual Costs	$151,965
			Life Cycle Cost	**$1,523,200**

[1]Cost per linear foot is based on linear regression of previous stream restoration/stabilization jobs ranging from 35 to 2215 linear feet.